



CHILDREN OF TODAY

by E.R. BOYCE

BOOK 1



428
Boy

CHILDREN OF TODAY

by E. R. BOYCE

Trainers' Diploma, N.F.U.; Lecturer in Education; formerly H.M.I.

1. The Clothes We Wear
2. The Clothes Other Children Wear
3. The Food We Eat
4. The Food Other Children Eat
5. The Houses We Live In
6. The Houses Other Children Live In

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THE CLOTHES WE WEAR

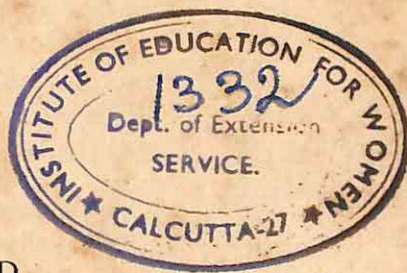


With pictures by Vivien Hislop

428
Boy

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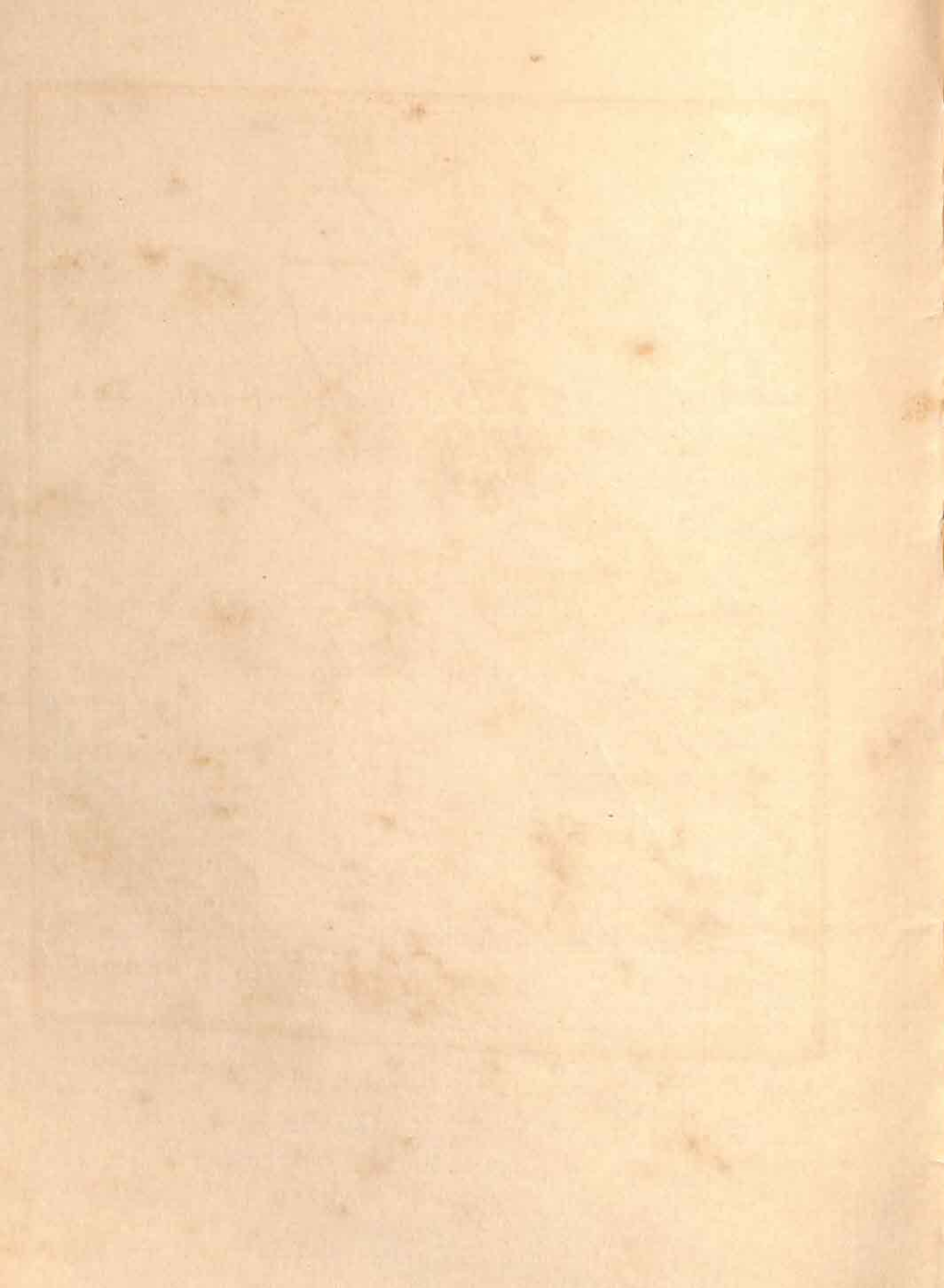
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MAP OF THE UNITED KINGDOM FOR TRACING

YOUR OWN BOOK

Before you begin your study of clothes, make a book of your own. Then you can keep your pictures, drawings and writing together.

Make the book with some plain paper and some writing paper. You will want about 20 pages in your book. Try to find some stiff paper for the cover. Then paste a large used envelope inside the front cover, and another one inside the back cover.

Write your name, address and age inside the front cover. Then number the pages. When you have time, decorate your cover and write a title on the front. You can make up your own title.

WORK PAGES—SET 1

Begin to use your own book. Leave the first page blank.

1. On the next page, write "The things I wear". Make three lists like this :

What I wear	When	What it is made of

Fill in your lists. Do not forget boots and shoes, hats and gloves, socks and stockings.

2. Draw and label the things that other people wear. For instance, you could begin with the things that babies wear, and then go on to mothers, Boy Scouts, Girl Guides, airmen, firemen, policemen, sailors and mountaineers.

3. Think about this question : Why do people wear clothes? Write down your answer.

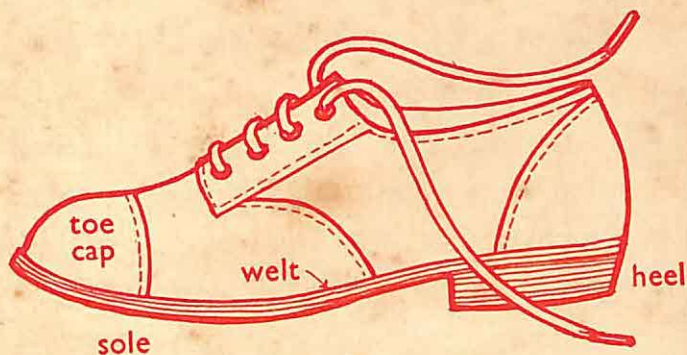


YOUR FOOTWEAR

Your feet are very important to you. They take you along on the hard roads. They have to carry all your weight too.

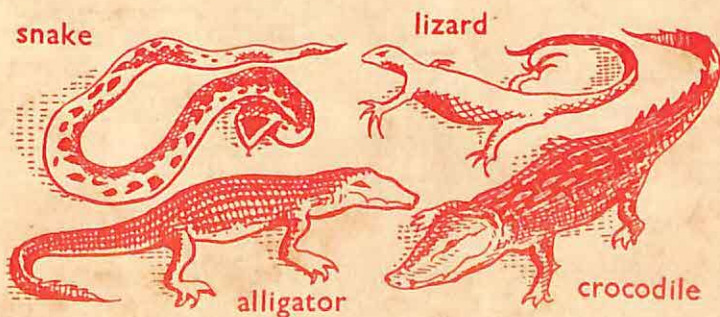
When you were a baby, your mother put soft woolly boots on your feet. As soon as you could walk, she bought you a pair of shoes with hard leather soles. When you were older and stronger, you wore bigger and stronger shoes. Perhaps you have a pair of boots now.

You may have different sorts of footwear made from different kinds of materials. Plimsolls and Wellington boots are made of rubber and canvas. Some shoes have crêpe rubber soles and some slippers are made of cloth and felt.



This is a leather shoe. Leather is made of the skins of animals. Your school shoes are made of skin. Strong shoe leather is also made from the skins of sheep, goats, pigs and horses. Thinner leather is made from the skins of snakes, alligators, crocodiles and lizards.

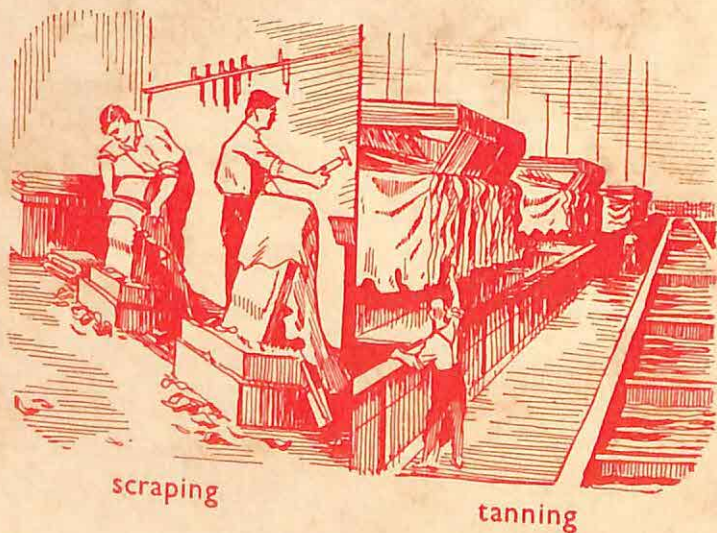
Before the skins can be used, they are made soft enough to bend and to be cut easily. They have to be made waterproof too. This work is called tanning.



The men who do it are called tanners. The place where the work is done is called a tan-yard.

Tan pits are sunk into the floor of the tan-yard. They are filled with liquid called tannin. Some tannin is made from tree bark, roots and leaves. Some is made from chemicals. Some pits hold weak tannin. Some hold stronger tannin and some hold very strong tannin.

But first, the hair on the animal skin is scraped off to leave the smooth hide. Then the tanners put the hides into the tannin pit to soak up the weakest tannin. Then the hides go into a pit of stronger tannin, then into stronger and stronger tannin until they are soaked in the strongest tannin of all.



When a hide has been washed, oiled, dyed, dried and polished, it is leather. Now it is ready to go to the factory to be made into boots and shoes.



finishing

WORK PAGES—SET 2

1. Write “Footwear” at the top of the page. Draw a shoe and label the parts.

2. Draw pictures of all your footwear. Label each part with the right name. Write down what they are made of and why you wear them.

3. Write “Leather shoes are made from . . .” and finish the sentence.

4. Write “From animal skin to leather”. Write down how skins are tanned, and draw pictures to show the tan-yard and the tanner.



MAKING BOOTS AND SHOES

The soles of your shoes are cut out of tough leather that will not stretch. The men who do this are called cutters. Most of them use cutting machines.

The men who cut the uppers of your shoes are called clickers. They mark out the cuts, and the machines do the cutting.

There are several pieces in each upper. They are stitched together on a shoe-making machine. Then the sole and the upper are joined by riveting or sewing. Then the tongue is sewn in and the eyelets punched,

ready for the laces. Lastly, the shoes are polished and packed into boxes which are sent to the shop for you to buy.

WORK PAGES—SET 3

1. Write “How I get my shoes”. Draw pictures to remind you how you get your leather boots and shoes. Label your pictures. For instance, you might put “The animal”, “The skin”, “The tan-yard”, “A lorry load of leather”, “The shoe-making machine”.

2. Write “People who work to make my shoes”. Make a list of these people.

3. Write “Other clothes are made of leather”. Make a list of other things besides shoes that people wear that are made of leather. Draw them, if you like.

4. Begin to collect pictures of footwear and small pieces of different kinds of leather. Put them in your envelope. When you have enough, stick them neatly in your book and label them.



YOUR WET-WEATHER CLOTHES

Down comes the rain! You have to put on your waterproof hat and your Wellington boots, and go to school in your "mac" or your raincoat.

"Mac" is short for macintosh. Mr. Macintosh was the man who first thought of making coats to keep people dry by using rubber in between two layers of stuff. When the rain falls on this sort of coat, it cannot get inside because the rubber stops it.

Your wet-weather clothes are much lighter and better-looking than the first clumsy coats made by Mr. Macintosh.

First, the cloth is woven at the mill. Then it goes to a

factory to be made waterproof. There are different ways of doing this. When black shiny macintosh stuff is made, the cloth goes into a spreading machine and is covered with a thin layer of soft rubber, mixed with colours and chemicals.

More and more layers are spread until the waterproof covering is thick enough to keep out the rain. Then the cloth is baked in an oven.

The raincoats that you wear are made from cloth which has been soaked in chemicals and then heated until it is dry. While it is drying the chemicals change into tiny hard lumps. They fill up the air spaces in the cloth so that the rain cannot get through.

The fishermen in this picture are wearing oilskin suits



which keep out the heaviest rain and protect them from the stormy seas.

Oilskin is made of cotton or silk, which is first dipped in starch and then dried. Next it is covered with layers of varnish mixed with drying oil and a little gum.

Before you or the fisherman buy your wet-weather clothes, the waterproof cloth is cut to the right size and shape. Then the pieces are stitched together by machines. The buttonholes are cut and stitched and the buttons are sewn on very, very quickly by other machines. But men and women have to look after the machines.

WORK PAGES—SET 4

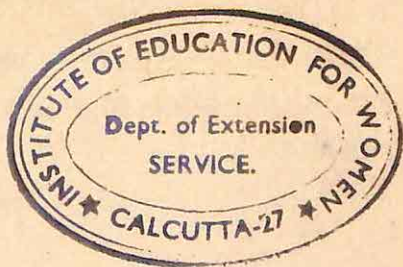
1. Write "Wet-weather clothes". Draw all the wet-weather clothes you can think of. Label them with the right names. Write down what they are made of.
2. Write "Mixtures which make cloth waterproof". Find the answers on pages 9-10 and write out the mixtures.

3. Many things besides clothes have to be waterproof. Make a list of any you can think of and draw some of them.

4. Begin to collect pictures of wet-weather clothes and small pieces of waterproof material. Keep them in your envelope until you have enough to fill a page.

WORK PAGES—SET 5

Cut the pieces of material you have collected into shapes of clothes, and stick them in your book, with the pictures of wet-weather clothes.





YOUR WINTER CLOTHES

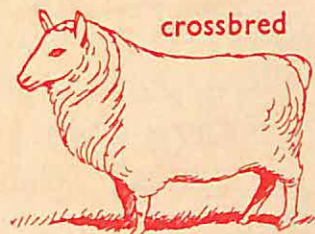
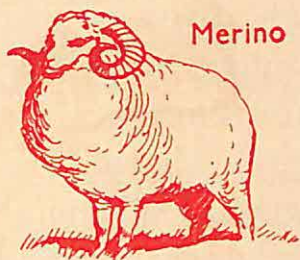
Look at your lists on page 1. You will see that nearly all your winter underclothes are made of woolly materials. Your winter top clothes are made of different kinds of cloth like serge or tweed. These cloths are made out of woollen threads too. Your stockings are made of wool or wool mixed with threads of cotton. Your mother uses knitting wool to make your jerseys and pullovers.

Of course, you know that the wool your clothes are made of once grew on a sheep. Different kinds of wool grow on different kinds of sheep and make different sorts of clothes.

Merino sheep grow short, fine, crimpy wool, which is as soft and fine as your own hair. It is used to make cloth for best suits and coats and soft felt for best hats.

Another kind of sheep is called the crossbred. The wool from these animals is not so fine as Merino wool. Your socks and stockings are made of this wool.

Then there are carpet-wool sheep like the blackface sheep of Scotland. Their wool is long, coarse and shaggy. It makes strong cloth like Harris tweed and carpets.



WORK PAGES—SET 6

On this page of your own book, make a display of different kinds of woollen material and materials which have wool woven into them. Use small pieces. Perhaps your teacher will start a collecting box of pieces

which you can share and exchange. She may get you patterns from a shop. Ask your mother if she can find you some pieces in her ragbag. Remember to look for bits of felt and carpet as well as pieces of old socks and scraps of knitting.

Trim your samples carefully and space them nicely to make your page attractive. If you can find out what the different kinds of materials are called, write the names near the samples. It will be more interesting still if you can add which kind of sheep the cloth comes from. Call your page "Wool for winter clothes".

I. WHERE SHEEP LIVE

Britain is a small country. But millions of sheep feed on the grassy downs, on the hills and in the pastures. They are chiefly the crossbred and carpet-wool kind of sheep. Our weather is too damp for Merino sheep. They live in Australia, which has drier weather. There are about six times as many sheep in Australia as there are in Britain. But Australia is a much bigger country.

Sheep live wherever there is good grass and not too much rain. New Zealand has a wet side and a dry side. Millions of crossbreds graze on the dry side and none at all on the hilly wet side.

South Africa is a very dry country. Most of the sheep

are Merinos, but carpet-wool sheep are found there too. Africa and New Zealand together have twice as many sheep as we have in Britain.

Millions of Merinos and crossbreeds graze in the United States, and all kinds of sheep are found in South America, where there are about three times as many sheep as there are in Britain.

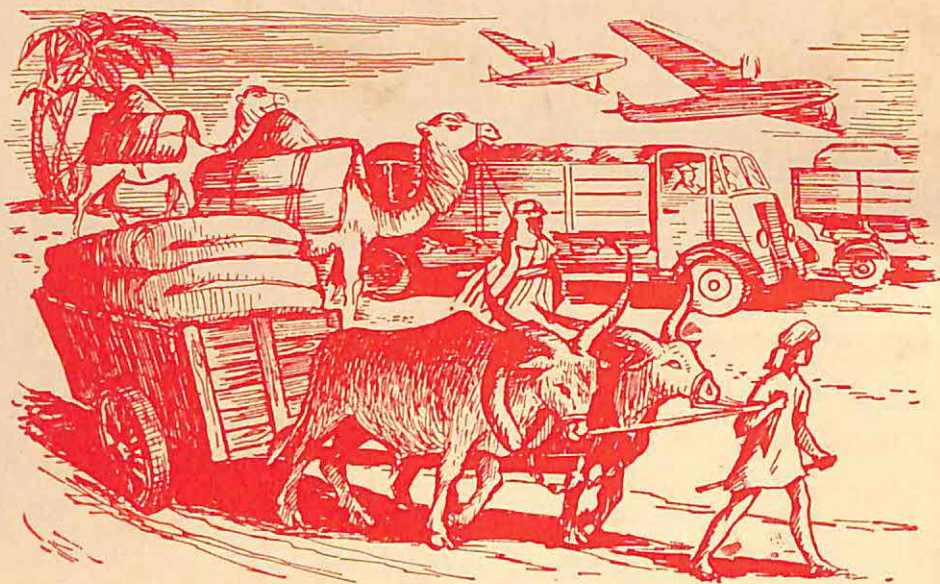
WORK PAGES—SET 7

1. Write "Wool grows on sheep". Draw pictures of the different kinds of wool sheep. Label each one with its name and write down what its wool is used for.

2. Trace the map of the world on pages 24-25. Colour the sea. Use a different colour to mark the wool-growing countries. Write underneath, "Wool is produced in . . .". Fill in the names of the countries. Stick the map in your book.

2. WOOL GOES TO THE MILL

In the spring, the sheep are collected together for shearing. The dirty wool from underneath is snipped off first. The rest, which is called the fleece, is shorn off in one piece.



All the dirty wool is kept together. The good fleeces are pressed into bags and sewn up. Then they are marked with a number to show the kind of wool and where it comes from. Now they are called wool bales and are ready to leave the farm to go to the warehouse. There they will be sold.

In Britain, you can see the lorries going along the main roads, piled high with wool bales. In Australia, wool roads are built especially for the great lorries that carry the bales.

In hilly places you can see horses pulling the wool

carts. Sometimes very strong bullocks do the pulling. In some parts of the world, camels carry the bales. In places where there are no good roads, they go by aeroplane.

At the warehouse, one bale of each kind of wool is slit open and spread out on the floor. The merchants go round, feeling the wool. They write down the numbers of the bales they will buy at the wool sale.

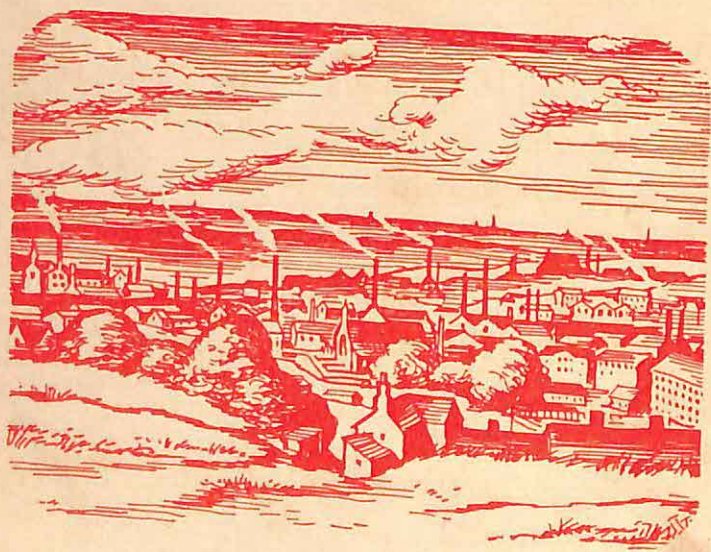
Thousands of bales have to cross the sea. Some of the wool that your winter clothes are made of is bought by British merchants from farmers in New Zealand. The

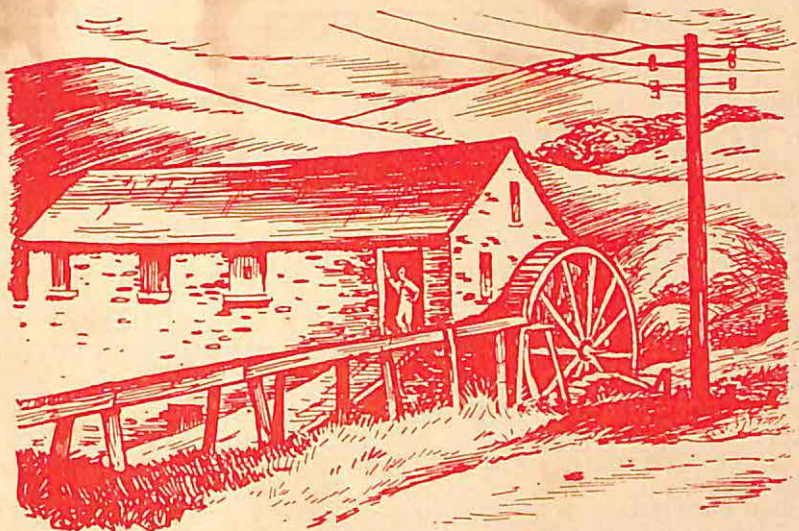


bales are carried in cargo ships to seaports in Britain. If you live near the docks, you can see the machines unloading the bales and the cranes loading them up on lorries. This time the wool is going to the mill.

Mills are factories where the wool is made into cloth for your clothes. Some cloth is made in people's houses, just as it was before your grandmother was born. But most of it is made in noisy factories, full of machines.

There are more than 1,000 factories in Yorkshire where cloth for your coats and knitting wool is made. This is what a wool town looks like. You can tell the mills by the chimneys.





The wool that we call flannel is made at the mills in small towns in the West of England. These mills also make blue cloth for sailors' suits, khaki cloth for soldiers' uniforms and the red cloth for the guards outside Buckingham Palace.

There are many small mills in Wales and in Ireland too. In Scotland, there are mills that make Harris tweed for strong winter coats. Your socks, stockings and jerseys are woven in the mills in the middle of England.

Of course, there are woollen mills in many other countries of the world.

WORK PAGES—SET 8

1. Trace the map of the world on pages 24-25. Colour the sea. Use another colour to mark the journey of the ships carrying wool to Britain. Label your map and stick it in your book.

2. Trace the map of the United Kingdom on page vii. Colour the sea. Use another colour to show the places where wool is made. Label your map and stick it in your book.

3. Draw or stick in pictures of socks, stockings and jerseys. Write underneath where they are made. Do the same with suits and coats, and then with uniforms and flannel baby clothes.

4. Draw some knitted clothes. Write "The wool for these was woven . . .". Finish this.

WORK PAGES—SET 9

Make a collection of pictures which show winter clothes, and pictures which show how they are made. When you have enough, arrange them in your book. Call one set "Woollen clothes" and the other "How they are made".

3. AT THE MILL

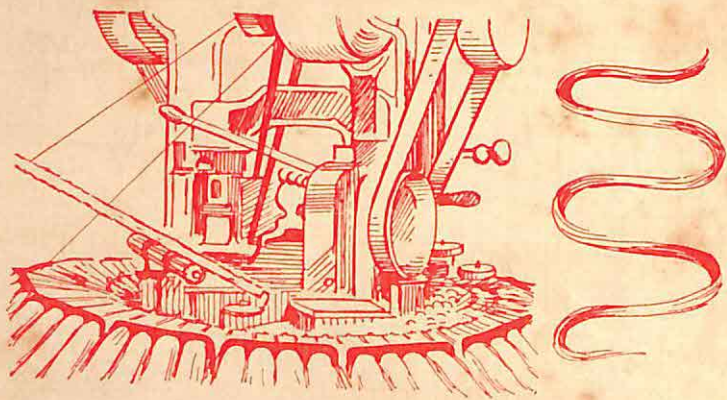
When the bales are opened, the wool looks dirty, greasy and tangled up. Every bit has to be washed just as dirty clothes are washed at home. But the wool goes into very big tanks instead of into tubs or washing machines. Each tank except the last holds soapy water and soda. The last one holds clean plain water.



The wool is pushed about gently by rakes which are worked by machines. Then it goes through rollers like those on a mangle. The rollers squeeze the dirty water out. The clean wet wool is dried in a machine that blows hot air on it. (Your mother's hair is dried this way if she goes to a hairdresser.)

The clean wool is full of tangles. You know that to get out knots, you have to work at them and get them loose. Then you pull the threads apart. This is just how the machines get the tangles out of wool. Instead of fingers, they have rollers covered with thousands of wire pins. They are called carding machines.

When the knots are straightened out, the wool winds round bobbins and looks like the carded wool on the right of the picture below.



WORK PAGES—SET 10

1. Write "Machines that are used to make my winter clothes". Begin a list, and draw or stick in pictures to illustrate it. Leave a space under your work so that you can add to it as you learn more.

2. *An Experiment.* Find a piece of fluff. Rub it between your hands to make it long and thin, like a little rope. Stick it into your book and write, "This is what wool looks like when it comes out of the carding machine."

3. If you live in the country, go wool-gathering for the loose wool that sheep leave on wire and in hedges. Feel how greasy it is. It is dirty too, with bits of twig caught in it. It is just like unwashed wool in the mill. Stick an unwashed piece into your book. Wash and dry the rest. Keep it safe in your envelope. You will want it later on.

Spinning

The picture shows you how people used to spin wool into yarn for making cloth by tying a bunch of carded wool to a stick, called a distaff. Then they pulled out tiny tufts of fibres and twisted them between their fingers and thumb. This made the tuft thinner and stronger. A wooden spindle hung at the end of the spun thread and went round and round, twisting and winding all the time.





MAP OF THE WORLD

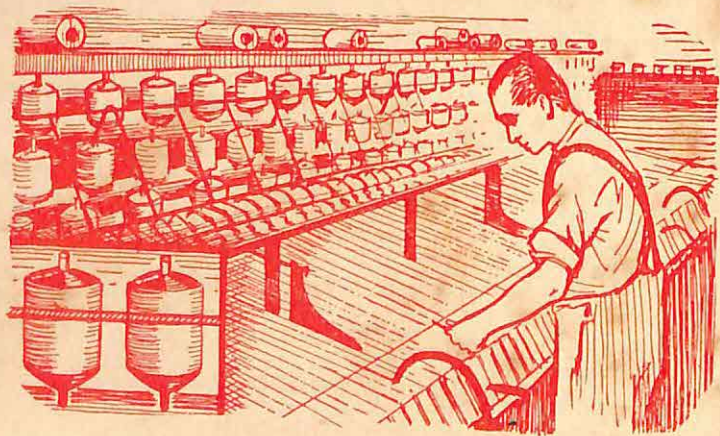


FOR TRACING



This picture shows you a spinning wheel at work. This was used instead of a distaff to pull out, twist and wind the yarn.

Now-a-days spinning is done on a spinning frame with thousands of whirling spindles. You can see them in the picture below. The spindles go backwards and forwards, twisting and drawing out the yarn and winding it on bobbins. Only one worker, called the spinner, works the machine.





Dyeing

Your winter clothes are all sorts of colours. Perhaps your winter coat is a mixture of many colours. Women used to colour the wool with dyes which they made themselves. They boiled roots, berries, tree bark, vegetables and earth to get the different colours. Then they boiled the wool in the colour. Some people made scarlet from the cochineal insect.

The juice of this insect is used today for dyeing the stripe on postmen's trousers. Most of the other dyes are made by chemists in their workshops, called laboratories. They make the colours from chemicals.

At the mill, the wool is put into vats of hot dye and the dyer stirs it round with a long pole.

1. Write this : “Spinning means twisting and winding yarn on to bobbins”. Draw pictures to show the different ways of doing this.

2. Add more names to your list of machines.

3. Think of the time when the wool was on the sheep. Make a list called “People who help to make my winter clothes”. Begin with the shepherd. Leave space to add to your list.

4. *An experiment.* Spin your washed wool. Hold it in one hand. With the other, draw out tiny pieces, twisting it as you do so. Tie a conker or heavy stick at the end of your thread to make the spindle. You will find that you have made a little piece of rough, lumpy, woollen thread. Stick it into your book and explain how you did it.

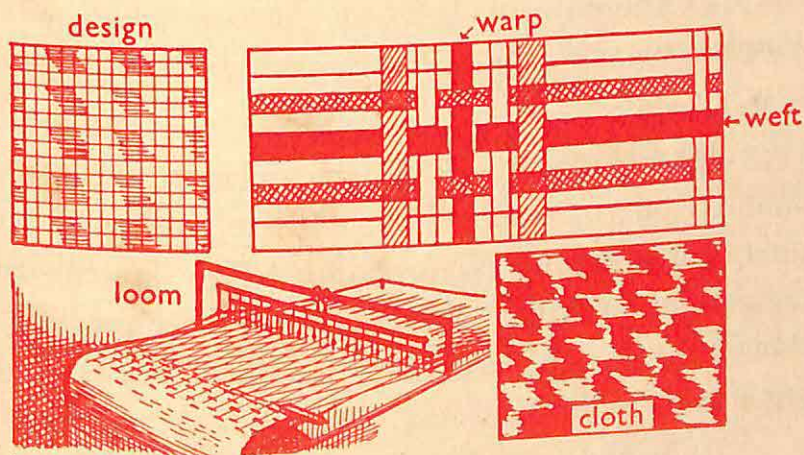
5. *Another Experiment.* Make dyes with tree bark, onion skins, or berries. Dye some plain bits of wool, stirring them round in the boiling dye. Do this again with a chemical dye. You can buy one cheaply at the chemist’s shop, and share it with a lot of other children. Stick some plain wool in your book and then the wool

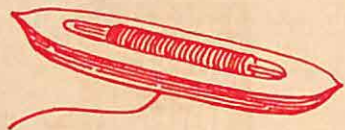
dyed with vegetable dye and chemical dye. Explain what you did and label the pieces of wool.

Weaving

Look at your winter coat. You will see that there is a pattern woven into the cloth. People called designers make up these patterns on paper covered with little squares. They draw some lines going up and down and other lines going across, in and out of the downward lines.

The weavers who weave the wool into cloth, study the patterns. Then they know how to arrange the threads on the weaving machine, called a loom. The up-and-down lines on the paper show the weaver where to put the up-and-down threads. They are called warp threads. The lines going across show him where the weft threads are to go. Weft threads go across.



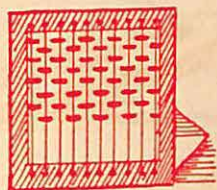


When all the thousands of threads are in their right places, a shuttle with a bobbin of thread inside is driven backwards and forwards, shooting the weft through the warp. It goes over some threads and under the others, making the pattern as the cloth is woven. Ask your mother to show you her shuttle on her sewing machine.

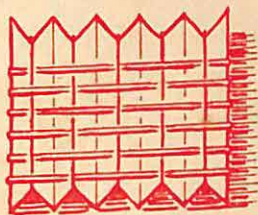
WORK PAGES—SET 12

1. Add another name to your list of machines.
2. Add another name to your list of people who help to make your winter clothes.
3. Make up some weaving patterns on squared paper and stick them into your book. Use red for the warp lines and black for the weft lines.
4. Darning is a kind of weaving. Get a piece of stuff, a needle and wool of two different colours. Make a neat darn to put in your book. Write this underneath, filling in the missing words: "The up-and-down threads on a loom are called The sideways threads on a loom are called The needle going in and out is like the on a loom."

5. You can make a simple loom. Use cardboard or an old picture frame or a box. Your teacher will help you. Design a pattern. Then weave a piece of woollen cloth. Arrange your warp threads and use a long needle instead of a shuttle. As you go over and under, you will make the weft and the pattern.

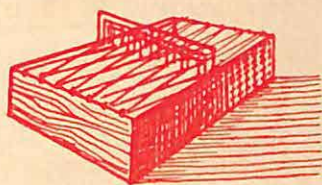


a loom from an old picture frame



a card loom

6. Stick your cloth into your book. Draw the loom you made. Write about what you have done.



Box loom with heddles for raising and lowering threads

4. YOUR CLOTHES ARE MADE

When the cloth comes off the loom, it is dirty and oily. So it has to be washed and dried, smoothed out, pressed and folded up. Then it is ready to go to a clothing factory.

People who make clothes are called tailors. Some tailors cut out clothes with scissors and put them together on sewing machines. But most clothes now-a-days are cut out by mechanical knives. They cut fifty of one size all at once. Machines sew the pieces together, make the buttonholes, sew on the buttons and put in the zips. They work very quickly indeed.

Other machines press your clothes. Then they are packed up and sent to the shops for your mother to buy for you.

WORK PAGES—SET 13

1. Look at any pictures you have left in your envelope. See that they are tidy. Stick them into your book on the right pages.

2. Look at each page of your book and see that your lists are finished.

3. Write on this page "My winter clothes are made". Draw two pictures showing the inside and outside of a shop that sells clothes. Draw yourself and your mother buying you some new clothes.

4. Begin to collect pictures of all kinds of summer wear, and put them in your envelope.

5. Think about this question. Why do you wear summer clothes? Write "My summer clothes" at the top of the next page. Then write your answer to the question. Begin like this "I wear summer clothes because . . ."

6. Draw some of your summer clothes. By the side of each one, write the name and what it is made of.



YOUR SUMMER CLOTHES

You are glad when the warm weather comes and you can leave off your coats and jerseys. Your summer clothes are lighter in weight and colour. They are brighter too. Some of your dresses and underwear are made of cotton.

I. WHERE COTTON GROWS

Cotton grows on a pretty bush, about three feet high, in the fields of hot countries like China, India, Egypt and parts of America.

When a flower on the cotton bush fades, a round,

green seed-pod grows. This is called a cotton boll. When the boll is ripe, it bursts open and becomes a fluffy ball of white fibres. Each fibre is very fine and curly, like the curly hair on a girl's head. The cotton seeds are hidden underneath these fibres.

The cotton stuff for some of your summer wear is made from these fluffy fibres of raw cotton.

In August, the cotton fields look beautiful with rows of white fluffy patches shining on the green bushes. The cotton is ready for picking. Men and women, boys and girls, take large baskets and go up and down the rows, picking the fibres. They pick carefully for the



flower



seed pod



cotton bush



section
of boll



open boll



cotton is spoiled if twigs and leaves are mixed with it.

When the baskets are full, the pickers carry them to the gin. This is a machine with saw-like teeth which gets the seeds out of the downy fibre.

Then the raw cotton is packed up tightly into bales and strapped round with metal bands. (You will remember that wool is also packed into bales.) Some cotton bales go straight to the mills to be made into cloth. Some have to travel across the country to the seaports. They are going over the sea to other countries. The great bales of American cotton are piled up on



wagons and pulled along by mules. In India, the cotton travels in carts, pulled by oxen. In Africa, it travels on the backs of camels.

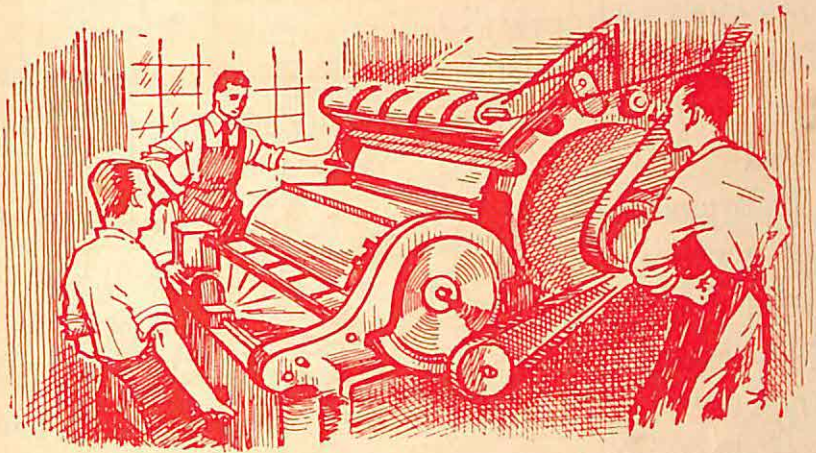
At the seaports, cranes lift the bales into the holds of the ships. When the ships get to Britain, the cranes at the docks lift the bales out of the ships and load them into warehouses. Then merchants come to buy, just as they come to buy wool. Once more the cotton has to travel. This time, lorries take it to the cotton mills. Here it is spun into thread and woven into cloth for your summer clothes.

1. Draw pictures to show how raw cotton gets to the cotton mills in this country. Write under your pictures.
2. Begin a list called "People who help to get my summer clothes". Leave a space so that you can fill it up later.
3. Begin to collect little pieces of cotton material and arrange them neatly on your next page. Get as many attractive patterns as you can.
4. Trace the map of the world on pages 24-25. Colour the sea. Use another colour to mark the journey of the ships carrying cotton to Britain. Label your map and stick it in your book.

2. AT THE COTTON MILL

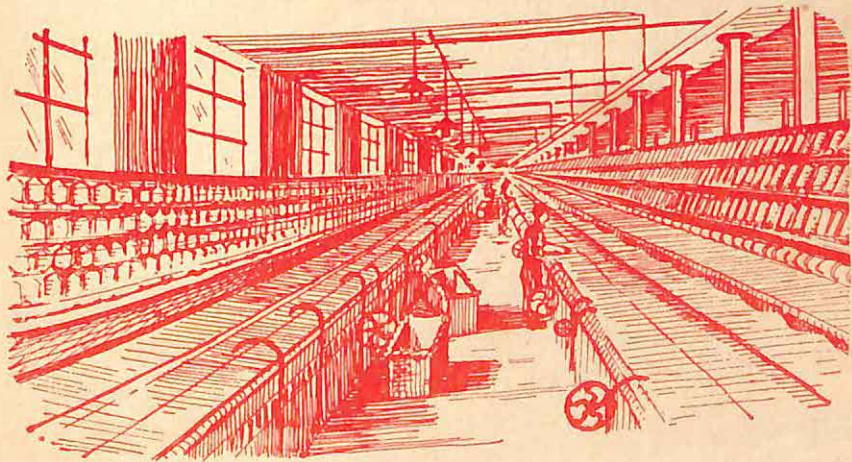
At the mill, the metal bands round the bales are undone. The dirty, crinkly, tangled-up fibres are taken out and put into cleaning machines. When the fibres are clean, they go into other machines to be pressed down very tightly into a sort of loose, fluffy blanket.

Now the tangles have to be straightened out, just like the tangles in the wool. The blanket of cotton fibres goes into a carding machine. The tangles are combed out and the crinkles are straightened. When the raw



cotton comes out of the carding machines, it looks like great strips of cotton wool.

Now it is ready for the spinning frame. This makes it into cotton thread, just as the wool was made into little ropes of woollen thread. The cotton thread now



looks like your mother's sewing cotton. But before it can be woven into cotton cloth, it has to be wound up on large spools. Each spool holds about one mile of thread.

If the cloth is to be coloured, the thread must be dyed, just as the wool is dyed. If there is to be a pattern woven into the cloth, the designers draw the pattern on squared paper. Then the weavers study the pattern to know how to thread up their looms.

There are weft threads and warp threads in cotton cloth, just as in woollen cloth.

When it comes out of the loom, some of the white cloth is dyed. Then some goes into huge pressing machines which stamp it with the gay patterns that girls like for their dresses.

After the cloth is dried, folded and packed, it is sent to the clothing factory to be made into your clothes. Or it goes to the drapers' shops where your mother can buy it by the yard to make your summer frocks and shirts.

WORK PAGES—SET 15

1. Arrange your pictures of summer clothes on this page.

2. Fill in the list you began on Work Pages—Set 14.
3. Make up some patterns that you would like on cotton material for your summer clothes.
4. Get some small pieces of plain cotton. Make some stamping pads with several thicknesses of cloth soaked with paint. Cut patterns on corks. Press the corks on to the stamping pads and then on to your plain material. Patterns used to be printed on material by stamping. Stick your patterns in your book and explain what you have done.
5. Draw pictures and label them to show how your cotton clothes get from the mill to you.

WORK PAGES—SET 16

1. Begin a new page. Write “My party clothes”. Draw and write about any party clothes you have or you used to have, or that you would like to have.
 2. Begin collecting pictures of party clothes and wedding dresses. Ask your mother if you can find them in her magazines or in pattern books.
- You will go on with these Work Pages later.



YOUR PARTY CLOTHES

You may have some very best clothes that are not made of cotton or wool. Perhaps you have a special shirt or a dress, a hair ribbon or a tie. Or you may have a nightdress that is prettier than your others. Perhaps you have a best pair of pyjamas.

These clothes are often made of rayon which looks like silk but is not silk at all. People used to call it artificial silk.

I. REAL SILK

Real silk is very expensive. Perhaps you have a real silk handkerchief or a real silk hair-ribbon. Your mother may have a real silk pair of stockings. Not many children have real silk clothes.

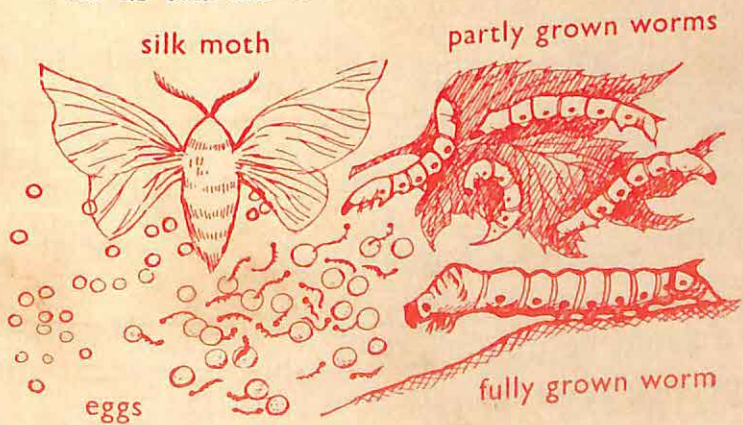
Real silk is a beautiful fibre made by a worm which feeds on the tender leaves of the mulberry tree. The female silk moth lays 300 or 400 eggs in her life. Each egg becomes a silk-worm or a silk caterpillar.



The caterpillar eats and eats and eats the mulberry leaves until it is about four inches long. Then it can eat no more.

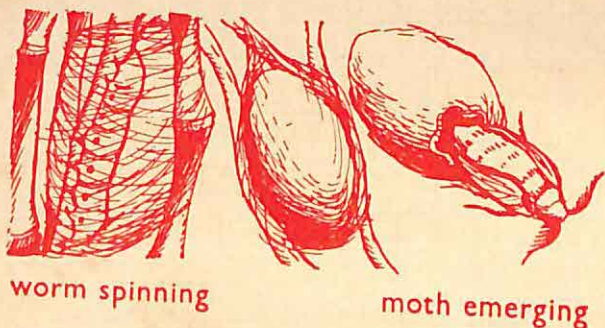
It begins to spin a silken cocoon round itself. A gummy, fine, silk thread comes out from two openings underneath the caterpillar's mouth. It is like the thread that a spider uses to make its web.

As soon as the air touches it, this sticky silk thread



gets hard. The worm spins it round and round its body until it is hidden in a house of silk. It takes three or four days to do this. Then it goes to sleep for two weeks.

When it wakes up, it breaks open one end of the cocoon and squeezes out. It looks very crushed and wet. But it soon stretches out and dries its wings. It has changed into a beautiful, creamy, white moth.



WORK PAGES—SET 16 (continued)

3. Go on with these pages now. Write "Real silk" by the pictures of real silk clothes. Copy and finish this: "Real silk is made"

4. Draw pictures to show what happens to a silk moth from the time it is born till it becomes a moth. Label your pictures.

2. SILKWORM FARMS AND SILK CLOTHES

There are silkworm farms in countries like France, Italy, China and Japan where mulberry trees grow. The eggs are too precious to be left out of doors. So the farmer spreads them out on flat trays indoors.

The boys and girls of the family take care of the little caterpillars. They feed them seven or eight times every day with clean, dry, mulberry leaves cut up into tiny pieces.

When a caterpillar is ready to make its cocoon, it lifts its head and looks for a place to build in. The children fetch straw and twigs and lay them in the trays. The worms climb up and begin spinning.



Now everyone is quiet in the farmhouse because noise frightens the worms and they may stop spinning. Then they may not begin again or they may leave a rough, lumpy place in the thread.

When the cocoons are finished, they go to the silk factory. First they are put into hot water and the sleepy worm inside dies. The silk would be spoilt if the creature was allowed to break out of its silken house.

Next, the cocoons are unwound. One thread, a thousand yards long, can be unreeled from one cocoon. Then the threads are washed in a soapy mixture to take away some of the gummy stickiness.

Like cotton and wool, the silk is first woven, then dyed and printed. Now the silk is ready to be made into stockings and ribbons, handkerchiefs and ties, dresses and shirts.

WORK PAGES—SET 17

1. Trace the map of the world on pages 24-25. Colour the sea. Use a different colour to mark the silk-growing countries. Label your map and stick it in your book.

2. Write "Silkworm farms". Draw pictures to show the silkworms' life at the farm.

3. Draw pictures to show what happens to the cocoons and the silk after the children pick them off the twigs. Label your pictures.

4. Write about what happens at the silk factory.

3. MAN-MADE SILK

Most children have something made of rayon. This is the name for silk which is made by men and not by silkworms. Your summer clothes are often made of rayon instead of cotton. Your best clothes are usually made of rayon. So are your party clothes.

You remember that when the children pick the cotton bolls, they take their baskets along to the gins. The saw-like teeth of the gins pull the seeds out of the fluffy cotton.

These seeds are covered with short hairy fibres which people used to throw away. Now they are put into machines with fast-turning saws that tear the fibres off the seeds.

These fibres are cooked until they become a mass of stuff that is gummy like the silkworm's thread. This gummy mass is squeezed through heavy rollers. Then it is pressed into flat sheets. When these are packed, they are sent over the sea to factories. There they are made into rayon for your best clothes.



4. TREES INTO CLOTHES

Not all your rayon clothes are made from cotton seed fibres. Your best dress may once have been part of a spruce tree, growing in the forests of Canada.

Workmen called lumberjacks cut down the spruce trees in the Autumn. Then the haulers with their powerful tractors haul the logs along to the nearest river.

Here the watermen chain the logs together and guide them along to the sawmills with long poles, which have hooks at one end.

The rushing water pushes the rolling logs from one

bank to the other. When they get jammed, the watermen jump from one to the other, guiding them to go the right way. This is dangerous work in rough weather. The men have to wear heavy boots, studded with sharp nails to give them a grip on the slippery bark of the wet logs.

When the logs get to the sawmill, the sawyers cut them into short pieces first, and then into tiny wood chips.

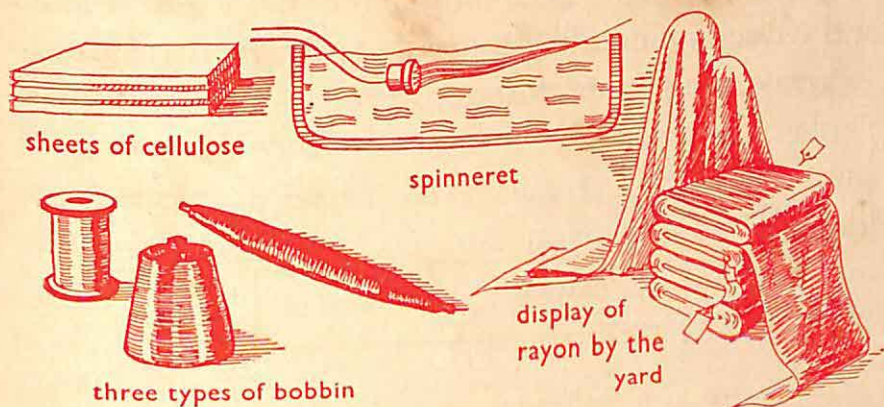
These chips are cooked into a pulpy mass which is gummy like the silkworm's thread. It is called cellulose.



It is pressed into sheets, like the cellulose from cotton seed fibres. Then it is sent to the factory to be made into rayon for your clothes.

WORK PAGES—SET 18

1. Write "Clothes made of rayon". Find out which of your clothes and other people's clothes are made of rayon. Then make a list of them. Write down who wears them. Draw too, if you like.
2. Collect small pieces of rayon with different patterns and stick them into your book. Your teacher may be able to get you some patterns from shops.
3. Many magazines and papers advertise rayon clothes, table-cloths and curtains. Look for them and cut out some of the pictures and some of the words which describe the articles. Keep them in your envelope until you have enough to stick into your book.
4. Trace the map of the world on pages 24-25. Colour the sea. Use a different colour to mark the forests of Canada and Norway. Label your map and fix it into your book.



5. CELLULOSE INTO RAYON

You remember that the silkworm forced the gummy liquid through two tiny holes underneath its mouth. Something very similar happens to the cellulose at the factory. Here the cellulose sheets are broken up and mixed with chemicals to make them into gummy liquid. This is forced through tiny holes in a little machine called a spinneret. The spinnerets are about as big as a thimble. You can hardly see the holes but they are perfectly round with smooth edges.

You will also remember that when the silkworm's gummy stuff met the cold air it hardened into a silk thread. As the cellulose comes out of the holes of the spinneret, it hardens in the same way. The cellulose has changed into rayon yarn that can be made shiny or

dull, thick or thin. It can be dyed bright or pale colours and woven to look like cotton or real silk or wool.

You can have a fairy-like party frock or a ballet dress made of rayon and your father can buy a heavy rayon suit. Your mother can have a rayon dress that looks like rich velvet. You can also wear rayon sweaters, underclothes and stockings. Your mother can knit with rayon yarn too.



WORK PAGES—SET 19

1. Write "Clothes out of trees". Draw pictures to show how a spruce tree in a forest becomes your party clothes. Label your pictures.

2. Write "People who help to make rayon for my clothes". Read pages 47-52 again. Then make a list of the people and say what they do.

3. Draw a line down the middle of your page. At the top of the first half, write "Worm-made silk". At the top of the second half, write "Man-made silk". Fill in each side to show how worms and men make the gummy fluid and the silken thread.

WORK PAGES—SET 20

and

CONCLUSION

Now you have finished your study of clothes. You have learnt that animals, plants and minerals from all over the world supply materials for your clothes. You have also learnt that men, women and other children work to get your clothes.

Go back to the blank page at the beginning of your book. Write "Contents", and make a list of your titles, and the page numbers. Look through your book and finish off your lists. See that the drawings and maps are labelled. Empty your envelopes and find places for the cuttings you want to keep.

On the last page write "What I have learned about my clothes". At the end write "This book is finished on ..." and fill in the date. Keep it safely. You may like to look at it later on.

FOR THE CLASSROOM REFERENCE LIBRARY

- 'Stories of Commonwealth Products: Sea Island Cotton', *Imperial Institute*
'The Story Book of Rayon', Maud and Miska Petersham, *Wells Gardner, Darton & Co., Ltd.*
'The Story Book of Wool', Maud and Miska Petersham, *Wells Gardner, Darton & Co., Ltd.*
'The Story Book of Silk', Maud and Miska Petersham, *Wells Gardner, Darton & Co., Ltd.*
'The Story of a Thread of Cotton', Ballam and Herbert, *Puffin Picture Book*
'Wonder Book of Wool', *Imperial Institute*
'World Book of Wool', *Imperial Institute*

VISUAL AIDS

- Commonwealth Murals No. 4 (Wool), *Imperial Institute*
Wool Display Card (with actual samples from raw material to finished cloth), *Imperial Institute*
'Cotton Box' (samples to show the various stages of manufacture from the raw fibre to the finished product), *Imperial Institute*

Slides and Film Strips on loan from Imperial Institute include:

- Timber from Forest to House (Canada), *Unicorn Head*
Growing Wool; From Pasture to Port, *International Wool Secretariat*
Sugar Cane and Cotton (India), *Imperial Institute*

Free Booklets and illustrations from:

- The Cotton Board, Manchester.
British Rayon and Synthetic Fibres Federation, Information Office,
Hamilton House, 138 Piccadilly, London, W. 1.
Wool Education Society, Dorland House, Regent Street, London,
S.W. 1.

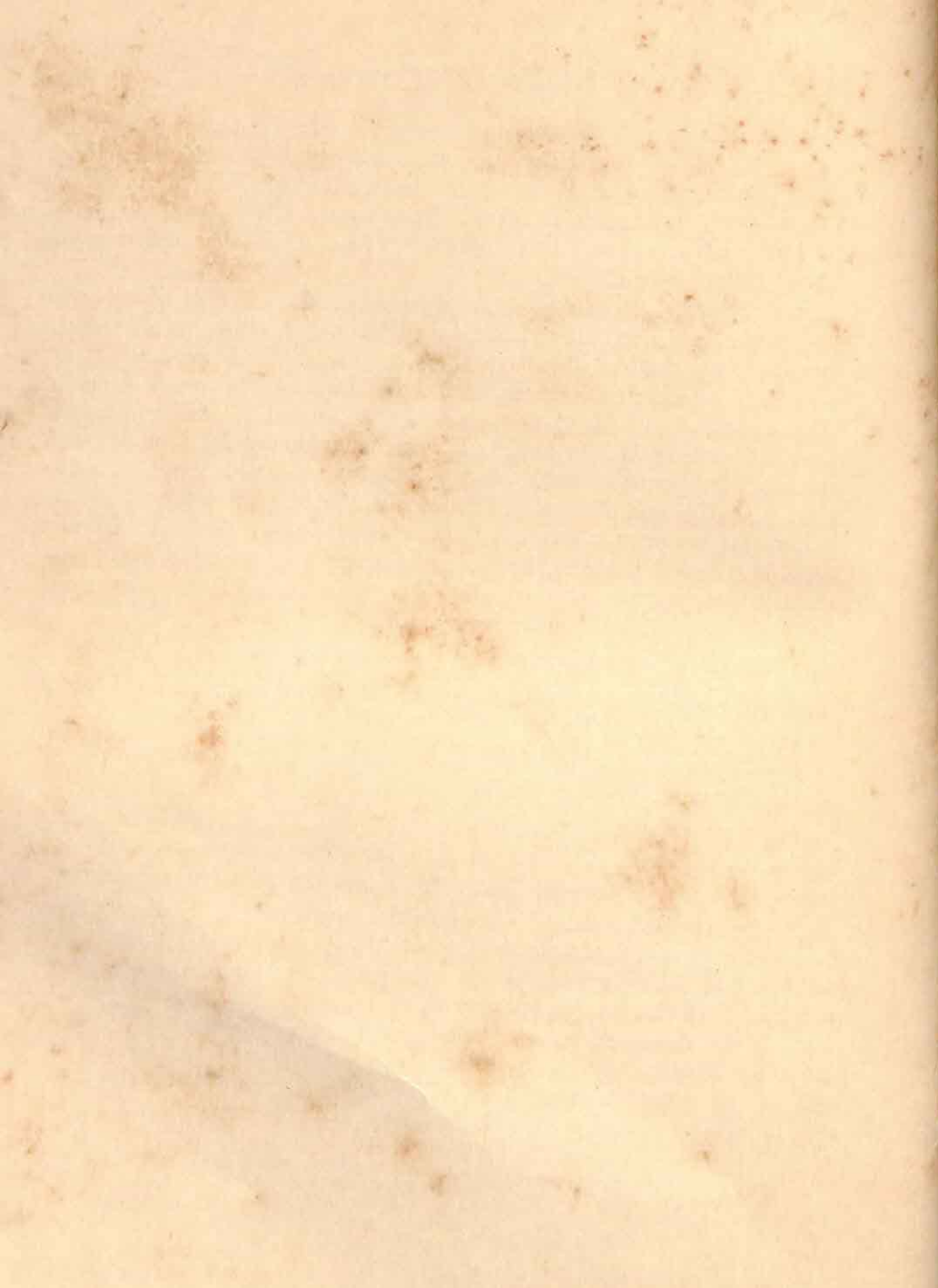
NOTE TO TEACHERS

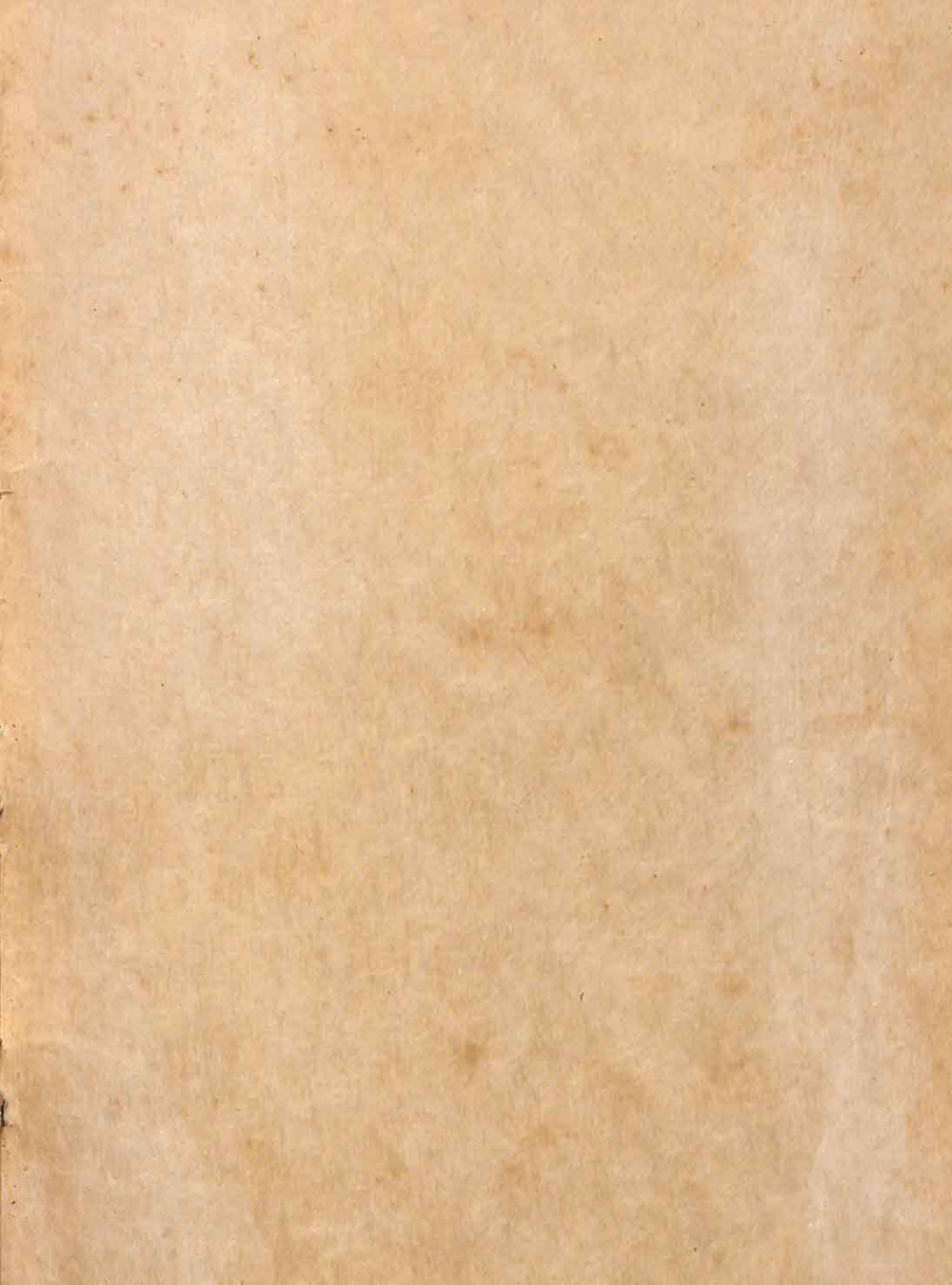
THESE books provide the information which modern children need to make sense of their complicated environment. Each topic begins with simple problems related to familiar, machine-made essentials in their lives. With the help of a teacher who discusses and expands each chapter, children begin to grasp the idea of man's relationship to his environment and to all other men, here and throughout the world.

In each pair of books the same topics are studied, but the problems in the companion books on Other Children are both simpler and more fundamental, because these children's lives are untouched by mechanization, and at the same time related to the interests of the children who will use these books. The teacher will be able to direct discussion so that, while learning about the lives of so-called primitive peoples, children come to understand their own lives more fully, to perceive something of the early history of their own race, and to realise that all people, whether their skins are light or dark, are worthy of respect.

A project-programme, based on the two books together, will provide a term's work in geography, history, English and science. The work pages give suggestions for independent inquiry, and classroom equipment must support the basic information in each book : for instance—

- (1) A library shelf with pamphlets, books and illustrative material.
- (2) Wall displays of posters, cuttings and illustrations to stimulate fresh ideas and to be examined at leisure.
- (3) Film strips to sharpen the mental picture and to correct the limitations of single illustrations.
- (4) Supply of outline maps. Maps are of limited use for children under eleven, but making maps by tracing and then using them as suggested on the work pages provides both a means of recording and an introduction to map reading.
- (5) Opportunities, material and space for other activities besides making books of their own, e.g. for collecting, arranging and tabulating, for drawing and labelling, for experiment, construction and dramatization. Each of these activities should be brought to a satisfying conclusion. Model-making, for example, is a form of summary but the actual making is not enough. Items must be assembled, compared with reality, and explained verbally and in writing. The arrangement of an exhibition is also a good form of summary, and can be used to explain to others what has been accomplished.







CHILDREN OF TODAY

by E. R. BOYCE

BOOK 1



Manilla Cover